AMERICAN RAILROAD JOURNAL,

AND

IRON MANUFACTURER'S AND MINING GAZETTE.

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PRINCIPAL CONTENTS.

AMERICAN RAILROAD JOURNAL.

PUBLISHED AT 105 CHESTNUT ST. PHILADELPHIA.

Saturday, February 26, 1848.

Hudson River Railroad.

The Albany Evening Journal, of Monday, says: "a telegraphic despatch from New York announced on Saturday evening that the railroad route was settled—the *river line* was adopted, 10 to 2."

Illinois Canal.

This important work is progressing rapidly to its completion, and it is probable that it will be navigable, through its entire line, before the opening of lake navigation.

At its entrance into the river at Bridgeport, the works are very nearly completed, awaiting only the laying up of about one hundred yards of masonry. The summit division will, it is said, be completed in about four weeks. The Lockport, which is the next division, is already finished, including a fine basin at that point. Between Lockport and Juliet, (five locks intervening) the water has been let in. At Juliet the two spacious basins are filled with water. The level below is finished, reaching to the Dupage. The Dresden level is also in readiness for the water from the Kankakee feeder, and the feeder itself, including a fine piece of masonry, for the acqueduct across the Desplaines is finished—with the exception of a portion of the dam across the Kankakee, upon which a sufficient force is engaged to complete it at an early day. The lower levels, towards the southern termination are for the most part completed, with the exception of a little finishing up—and this completes the line. The superstructures, bridges, etc., are all ready, or nearly so, for use.

When thus finished, the Illinois and Michigan canal will be one of the finest in point of structure, as well as one of the most important to internal commerce, of any similar improvement of the country. It is 100 miles in length, and connects the great northern lakes at Chicago with the navigable waters of the Illinois river at Peru. Its capacity is 60 feet water surface, by 5 feet in depth, the locks being 18 by 110 feet within the chamber, and the entire work constructed at the cost of upwards of seven millions of dollars.

By the completion of this work, and the enlargement of the Erie canal, boats may clear at New York for St. Louis, and the "*Yellow Stone*," high up the Missouri, or New Orleans and the Gulf of Mexico—and thus increase the business of the lakes and Erie canal. A few years will give a new impetus to the business of Illinois, which will ensure the construction of railroads.

Georgia and South Carolina.

The Savannah Republican, of 12th inst., has the following remarks in relation to a paragraph which appeared in this Journal on the 29th of January. It is from an article on American railroads, by a gentleman who would not intentionally misrepresent the facts—and *especially* not misrepresent the State of *Georgia*—whose perseverance in the cause of railroads he has often, to our personal knowledge highly complemented. Nor can we—who have so often held up the works of this noble State as an example to others—be justly charged with intentional misrepresentation of facts, because we publish articles as written by our correspondents, without correction, when we are sure they do not intend to mislead.

We noticed, when reading the proof, that he had omitted to do justice to Georgia—an omission which, we take it upon us to say, was not designed by him—and which it was our intention to supply, by a note, but it was not attended to; and hence we have another evidence that the Journal is read, in Georgia at least.

By refering to the Journal of November 27th, and January 22d last, the works of Georgia—measuring over *six hundred* miles of railroad now in use—may be seen on the maps; we could not, therefore, after having *such* testimony, even if we would, willingly have withheld a just tribute of praise to Georgia, or any other State having done, and doing, as much as Georgia, nor were we aware that others indulged in such a course, as we seldom read controversies between rival *roads* or *cities*—endeavoring always to do what will promote the *general* cause of railroads, without fear or favor; and it has sometimes amused, as well as vexed, us to receive communications from *both* parties, intimating that they supposed, when they subscribed, that the Railroad Journal was an *impartial* journal; from which we are led to infer that our walk is pretty erect—so erect, indeed, that we may seem to lean back a trifle when they look us in the face.

The editor of the Republican says: "South Carolina is a most fortunate State—fortunate, because a most inexorable degree of fate gives to her not only all the credit of what little she has done in the way of internal improvements, but all, or nearly all, of that which is due to the legislature and citizens of Georgia for what they have accomplished.

"In the last number of that useful and excellent paper, the *American Railroad Journal*, published, as our readers well know, in Philadelphia, is a well-written review of railroads in general from Maine to Georgia, from which we clip the following extract:

"'*South Carolina*, one of the first States in the railroad field, is steadily pushing on her important work through Georgia to Nashville. Charleston will probably be the first Atlantic city that will have a continuous line of railways, to steamboat navigation on our western rivers.'

"It would be obviously wrong to hold an editor responsible for the errors of his contributors, but we are nevertheless somewhat surprised to see an error so often corrected, and so palpable, appear in the *Journal*, without some qualification. This *falsehood* about Carolina improvements in Georgia, has been most industriously and successfully circulated during the year or two past.

"It would give employment to a well-disciplined army of writers to keep pace with these mis-statements, and put them down as fast as they appear in print. The truth is, that neither the State of South Carolina, or the city of Charleston, nor any other portion of Carolina, has ever made a foot of railroad in Georgia, or expended *one sous* for railroads in this State. True it is, that since the great Charleston and Cincinnati scheme has failed, the city of Charleston has no other way of communicating with Tennessee than through our Georgia improvements. The great State work of Georgia, 136 miles long, was undertaken *by* the people of Georgia and *for* the people of Georgia. It strikes the Tennessee river, and has its southern terminus at Atlanta, where this main trunk ceases, communicating with two branch lines made by individuals. One of these lines passes through Macon to Savannah under the name of the "Macon and Western," and the "Central" roads, 101 miles, and 190½ miles long, respectively. The

other leads to Augusta, and is known as the "Georgia" railroad. It is 171 miles long. From Augusta the "Charleston and Hamburg" road, 136 miles long, leads to Charleston, and from the same point, the Savannah river (the navigation of which by steam has reached a point of almost perfection,) leads to Savannah, thus giving to this city, as far as Atlanta, two distinct lines of communication to northwestern Georgia and Tennessee. We must here add that the Charleston and Hamburg railroad was not designed as a part of this connection. It was built to save the declining fortunes of Charleston by tapping the Augusta trade, before the Tennessee business was dreamed of, by more than one or two speculative minds.

"It may be proper to remark in furtherance of these explainations, that our State work is completed to Dalton, 36 miles from the Tennessee river.—This last portion only wants a superstructure, the grading being all done. An appropriation made by the legislature in December last, secures the completion of the whole in two years. The railroad from the Tennessee to Nashville is not yet begun, nor are the requisite subscriptions obtained, though a considerable amount has been subscribed. If the State of South Carolina, or if the city of Charleston will assume the responsibility of constructing this line, then will they indeed be entitled to the distinction of "*pushing on*" an "*important work to Nashville*," tho' it will not be "*through Georgia*," but beyond the limits of Georgia. Then, we shall be ready and willing to award to Carolina and her citizens credit for doing something towards the great chain of improvements from Tennessee to the Atlantic coast."

Our correspondent "Georgia" will please consider this a reply to his communication of 12th inst.

British Iron Trade.

We copy from the Commercial List of this city the following important letter on the iron trade of Great Britain. It is from a source entitled to the highest respect, and it is of interest to our own manufacturers, and to the railroad interest generally, therefore we give it entire.

Correspondence of the Commercial List.

LIVERPOOL, JANUARY 15, 1848.

The year 1847 has been a remarkable period in the annals of commerce, and has left impressions behind it which will not be easily erased. It commenced with a fair promise of success to the mercantile community, and of comfortable employment for the operative classes, but has disappointed the expectations of both, and been attended with an intensity and prolongation of suffering such as has never before been experienced. The causes appear to have been the enormous importation of food, induced by the failure for the second time of the potatoe crop. The serious derangement of the balance of trade, and state of the foreign exchanges, in consequence, leading to a drain of gold, simultaneously with a most unprecedented and monstrous outlay for railway undertakings of a most gigantic character, and the stringent operation of the bank act of 1844, the powers of which, not always well timed or wisely applied, were exerted with crushing force to prevent the one, and check the other. The metal trade was not so early, nor has it been so seriously affected by these causes as the other branches of industry, and throughout the year prices have been steady, and in general, remunerative to the parties engaged in it. In consequence of the immense demand for railway purposes, and the comparatively high price which has prevailed for some years, the production has fallen short of the requirements, and stocks both at home and abroad have been reduced to a very low point; for it is well to observe, that the very great demand for labor in all departments, prevented, fortunately, the increase of the make to any great extent. Owing, however, to the inability of the railway companies to proceed with their works, and to the interruption to both home and foreign trade, by the derangement of monetary affairs, the prosperity of the iron trade received a severe check towards the close of the year, and prices have declined considerably in consequence. We will proceed to refer to the various branches more particularly, and give such information as can be relied upon, and will, we think, be useful in forming an opinion as to the future.

MANUFACTURED IRON was in extensive demand until very recently, and prices have been remarkably steady throughout the year. RAILS were purchased largely, both for home consumption and export, and occupied many of the works, almost to the exclusion of other descriptions of iron. The demand, however, fell off very much about October, and the price which at the beginning of the year was £9 10s., has declined to £7 10s. per ton. BARS have commanded an equal price from the limited production, but have declined in like proportion. Staffordshire BARS, HOOP, and SHEETS have been in active demand, and prices were very firmly supported; but that district has also been at last affected by the depression, and at the quarterly meeting of the trade, held yesterday at Birmingham, a reduction of 40s. per ton from the highest prices of last quarter day was agreed upon. In consequence of a strike of the workmen against a reduction of their wages, little iron has been made for some time in Staffordshire and Shropshire, (72 furnaces out of 164, are said to be out of blast;) and should this continue much longer, the deficiency of supply may prevent this decline from being generally submitted to, and at present few parties will sell subject to it.

It wil. be observed, from a reference to the following tables, that our exports to the United States have increased very much during the past year, especially in the finer descriptions of iron, affording a gratifying proof of the advantage derived from freeing trade from hurtful restrictions. The shipment from Wales direct to the States, have also been much in advance of any former year. To India our exports have again been light; as the stocks are now very low, we may expect considerable shipments will be made there, so soon as an active business can be resumed with that country, but which is very much interrupted at present by the numerous failures which have taken place.

EXPORTS OF IRON FROM LIVERPOOL IN 1846 AND '47, TO NEW YORK, BOSTON, AND PHILADELPHIA.

	Rails.	Bars.	Hoop and sheet.	
To New York in 1846	6,440	7,026	901	tons.
" 1847	6,642	20,546	4,855	"
Increase	202	13,520	3,954	"
To Boston in 1846	6,030	4,114	623	"
" 1847	5,843	13,583	1,670	"
Increase		9,469	1,047	"
To Philadelphia in 1846	44	1,667	162	"
" 1847	150	3,414	670	"
Increase	106	1,747	508	"

Exports of British iron to all India, in the years—
1840. 1841. 1842. 1843. 1844. 1845. 1846. 1847.
27832 34179 24396 32689 31485 11973 8268 10976

Prices of bars December 31st, at Liverpool—
£7 10s., £5 5s., £4 15s., £6 10s., £9 5s., £9 10s., £8.

Scotch pig iron has now become an important article in the metal trade, the make having increased within a few years, since the introduction of the hot blast, from about 40,000 to upwards of 500,000 tons per annum.

We call your attention to the following table of the exports, stocks, production, and prices, during recent years, which we have computed from the most authentic sources:

EXPORTS.

	1847.	1846.	1845.
France	21,836	35,567	10,674
Jersey	95	268	130
Holland	21,942	30,094	4,068
Belgium	376	505	
Germany	28,639	18,167	3,743
Denmark, Sweden, and Norway	3,416	2,480	624
Russia	962		20
Austria	1,158	386	182
Turkey and Egypt	531	260	565
Italy	5,108	5,695	1,795
Spain	1,703	2,703	212
Portugal	283	735	198
South America	1,343	538	250
West Indies	215	170	100
New S. Wales and India	1,458	606	734
British America	6,227	7,307	5,391
United States	44,993	13,918	25,915
China	175		
	143,460	119.100	54,671
Coastwise	227,005	257,851	
Total export	370,465	376.951	
Of which to New York	28,005	9,709	
" Boston	14,195	3,187	
" Philadelphia	1,321	285	

STOCK AND PRODUCTION.

	Stock.		Production.
31st December, 1845	220,000	tons.	400,000
" 1846	144,800	"	520,000
" 1847	90,000	"	545,000

PRICES.

1843.		1844.	
January	47s. 6d	January	45s.
March	42s. 6d.	March	50s.
April	40s.	April	55s.a65s.
August	45s.	August	65s.a70s.
September	50s.	September	60s.a55s.
December	47s. 6d	December	60s.

	1845.	1846.	1847.
Jan'y...	65s 0da 70s 0d	76s 0da85s 0d	72s 6da77s 6d
Febr'y..	75s 0da 85s 0d	86s 0da72s 6d	74s 0da00s 0d
March .	107s 6da110s 0d	70s 0da75s 0d	
April ..	120s 0da 00s 0d	64s 0da69s 0d	70s 0da67s 6d
May...	75s 0da 85s 0d	65s 0da72s 6d	68s 0da64s 0d
June...	60s 0da 80s 0d	64s 0da70s 0d	65s 0da00s 0d
July ...	60s 0da 67s 6d	67s 0da73s 6d	67s 0da70s 0d
A ugust.	65s 0da 70s 0d	72s 0da76s 6d	70s 0da67s 0d
Sept....	75s 0da 84s 0d	72s 3da76s 0d	67s 0da64s 0d
Oct....	85s 0da 95s 0d	70s 0da72s 6d	60s sda56s 0d
Nov....	75s 0da 67s 6d	70s 0da72s 0d	56s 0da48s 0d
Dec....	70s 0da 80s 0d	71s 0da75s 0d	48s 0da46s 6d

STOCKS.

	Tons.
Stock on hand 31st December, 1846	144,300
Stock this date in stores and makers' hands.	90,000
Decrease	54,300

	1845.	'46.	'47.
Furnaces in blast 31st Dec	87	98	99
" out of blast 31st Dec	25	24	32
Total erected	112	122	131

And four new furnaces nearly ready.

		Tons.
Computed make in 1847	540,000	
Add stock 31st Dec., 1846	144,300	—684,300
Exports as above	370,465	
Stock this date	90,000	
Leaving for malleable iron, foundry consumption, etc., in 1847	223,835	—684,300

The prices in the early part of the year, it will be seen, were 75s. to 77s. 6d. per ton; and it is well to be remembered that the quotations for Scotch pig iron are for mixed numbers, ordinary brands, and for net cash payment, free on board at Glasgow; but under the influence of the pressure in the money market, causing forced sales of speculative parcels, the price continued with little interruption, to decline throughout the year, until it reached the present figure, which is lower than at any period since January, 1844. Whilst the make has materially increased, the stock has declined about 55,000 tons; both of which mainly result from a lengthened strike of the workmen, and the alteration of the gauge of the mineral railway. No such causes of interruption are likely to occur this year, and a make of 600,000 tons may, we think, be fairly counted upon; for although the present low and unremunerative prices will check an extension of works, it will stimulate, in present circumstances, the production of the works already in operation.

The exports to foreign ports in 1847, exceed those of 1846 by 24.360 tons; while coastwise, they have decreased 30,846 tons; making a *decrease* of total shipments in 1847, as compared with 1846, of 6,491 tons. The United States have been of great support to us, having taken a large quantity in excess of former years. Europe took less, although the price was so much lower than in 1846. Owing to the ex-

tension of malleable iron works in Scotland, and the immense demand for castings for railway purposes, the home consumption has, until recently, been very large, probably not less than 6,000 tons per week. A sudden and serious check has, however, been experienced, and we estimate that about 3,000 tons per week less of pig iron is now consuming in Scotland alone, than there was in the early part of last year; and in England, the falling off has been also very serious, amounting probably to over 2,000 tons per week; whilst the export to the continent for two or three months will be suspended by the season of the year. We therefore calculate upon an accumulation of stock for some time to come, although the comparative low price may induce purchases to some extent, for prospective wants, and prevent the pressure of iron upon the market. Wages have been reduced to almost as low a point as they were at any former period; and as this enters so largely into the cost of production, it is an important consideration in judging of the probability of an advance in price.

As to the probable course of the trade in future, it is very difficult to form an opinion. It is true that the year has opened with brighter prospects than have been apparent for some time; but although money is more abundant and cheaper, confidence, which is the main spring of the business, cannot be restored for some time. Not only have the failures been numerous and heavy beyond precedent, but the full effect of them has not yet been experienced; and we fear that not a few houses, which are still struggling with difficulties, will be forced to succumb to their pressure, and keep business in an unsettled state for some months. It must further be remembered, so great has been the impoverishment of the mercantile community, that the means of speculation are not at hand, if the will were apparent; and it appears to us that the course of improvement will be very slow, which will be the best guarantee for its being sure. As the prostration of the iron trade is owing mainly to the suspension of the enormous demand for railway works, we can only expect a decided improvement in connection with the resumption of these public works; but all the companies are so much in arrears for work already done, and goods supplied, that we do not expect that they will get funds, either by loans or calls, to enable them for a good while to contract fresh obligations. At present we have not arrived at the minimum of consumption, old contracts being still worked upon, and new ones being exceedingly scarce.

Our trade is the last to suffer, and the last to improve, and whilst we are of the opinion that prices will not probably decline further, we do not think that an early advance is likely or desirable. The demand at present is very limited, but with the advance of the spring, we look for a good trade.

The following just and appropriate remarks of the editor of the Commercial List ought to be read by every Pennsylvanian—*every American*. He says,

"Our advices, we think, are calculated to throw more light upon this subject than all the recent publications that have yet appeared in this country. The iron masters and manufacturers in Pennsylvania are particularly interested in this matter.

In our publication on the COAL AND IRON trade of Pennsylvania last year, we said—'IRON is not only essential to the INDEPENDENCE OF NATIONS, it is equally necessary to their progress in civilization, in arts, in manufactures, commerce, and agriculture.' * * 'The materials out of which iron is made is in the ground of exceeding little value in this country, scarcely more than 1-20th of the value of pig iron. This great sum of from sixty to one hundred millions of dollars has been paid to American laborers annually, (instead of England.) It has supported an army of industrious men. It has been distributed in EVERY branch and department of our HOME INDUSTRY. It has promoted and sustained the progress of internal improvements, and all our ways of transportation. But the great mass of it has passed into the hands of the FARMER; FOR FOOD IS, AFTER ALL, THE GREAT ELEMENT OF THE MANUFACTURE OF PIG IRON.'

"These exhibitions of the extent of the COAL TRADE, and of its importance to the UNION, lead us to ask whether this interest has not a very strong claim upon the GOVERNMENT FOR PROTECTION AND ENCOURAGEMENT. If not, how could such a claim be conceived of as possible? What operations can be more intimately connected with the prime element of national growth and power? What political wisdom can discern the propriety of withholding the protecting power of the government here, unless it be that which denies altogether the justice and policy of any restrictions on the disheartening competition of other nations, which is fitted to keep back our own enterprises for centuries?"

We copy the following, also, from the Philadelphia Commercial List of 12th inst.

London, January 14, 1848.

There are several circumstances to induce us to think that the low prices of iron cannot continue longer than a few months. In the first place, the immense establishment at Dowlais, (50,000 tons per annum has been the make,) will be closed on the 1st of March. About 2,000 workmen were discharged the first week of this month, and the remaining 4,000 will be in the course of the next five or six weeks; a certain number being paid off every Saturday evening. In Shropshire, Staffordshire, and other iron districts of England, more than two-thirds of the works are stopped In Scotland, three-fourths of all the furnaces are out of blast. With these facts, and the prospect of *cheap money*, as the season advances, and the consumption of iron going on in a very extensive way, we think there is almost a certainty of iron not continuing for a long time so depressed as it is at present.

St. Lawrence and Atlantic Railroad.

We have received the second annual report of the directors and engineer of this company to the stockholders, made on the 19th of January last.

From the report of the directors we learn that considerable progress has been made in the grading and masonry, and that the first sixteen miles will be completed by, or in, the month of August next. The finances of the company appear not to be in quite as flourishing a condition as we could wish, owing mainly, we presume, to the depression in England; but the directors have acted very judiciously, under the circumstance, in curtailing the expenditure—by consent of the contractors—on those divisions most distant from the St. Lawrence: the intention being to complete the work as far as it is commenced, and thus make every dollar, expended in construction, available, a course certain to ensure the completion of the road.

This company will be able, by, comparatively, a small outlay in the construction of a branch to the line, at Stanstead, to open a communication with the Passumpsic River railroad, and thus with Boston, as well as with Portland, by the main line. And it will not be very difficult, when these roads are completed, for the people of Montreal to extend the railroad from St. Johns to a connection with the Ogdensburg and Champlain road, and thus open also a communication with New York city—and the interior of the State—thus giving a choice by railroad of *three* principal Atlantic markets.

The people of Portland and Montreal have undertaken a mighty work for so small a population; but, heavy as it is, they will accomplish it, for the reason that they commenced right at both ends, and also because it will, when completed, pay well. The fact, that produce can be delivered at Portland so cheaply from Chicago, will of itself ensure the completion of this work.

By referring to the engineer's report the plan of construction will be seen—heavy longitudinal sills, with heavy bridge rail, will make a substantial and easy road, both for machinery and passengers; and the mode of tiling the sills together is *admirable*, because *repairs* can be so easily made.

The annual general meeting of the proprietors in the capital stock of the St. Lawrence and Atlantic railroad company was held on Wednesday, the 19th of January, 1848, at the company's office, in the city of Montreal. The secretary read the annual report as follows:

ANNUAL REPORT OF THE DIRECTORS.

The report submitted to the stockholders at their last annual general meeting, detailed the measures adopted by the directors preliminary to the construction of the road from the St. Lawrence, near the village of Longueuil through St. Hyacinthe to a point in Acton, distant about 45 miles from this city, to be completed in the year 1848, in accordance with the resolutions of the proprietary during the fall of the then past year.

At the period of that meeting, contracts were entered into for the grading of the road to St. Hyacinthe with responsible parties, and subsequently to Acton, and from thence it was secured to Sherbrooke, at the option of the company, whenever their resources warranted such further extension; contracts were also made for the construction of a most important feature in the road—the bridge over the river Richelieu at the rapids of Belœil.

Previously to taking possession, it became necessary to purchase the right of way from the different proprietors of land along the line, which, in the first 30 miles, has involved a settlement with no less than 304 individual cases, arising from the nature of the survey of the land into long narrow farms, and the line of road almost invariably crossing them obliquely.

The directors have, however, the gratification to report, that 279 out of the 304 claimants have been settled with, and conveyances of the right of way to that extent are now in possession of the company; including the termini on the St. Lawrence and at St. Hyacinthe, and in the unclosed cases the terms are agreed upon, and it only remains to make the payments and execute the deeds in 25 cases, to complete the full legal possession by the company of the roadway from the Saint Lawrence to St. Hyacinthe, with the necessary stopping places along the route. This very arduous and responsible duty was devolved by the board in addition to his ordinary services, upon the resident engineer, R. T. Bailey, Esq., and they have every reason to be satisfied with the ability and zeal which that gentleman has manifested in its prosecution.

The directors refer to the report of the land commissioner laid on the table, for the detail of purchase and expenditure on lands and stations.

The board have further to state relative to the right of way, that the British American land company, through their commissioner, A. T. Galt, Esq, have engaged to make over to this corporation, gratuitously, such land through their territory as may be found necessary to the right of way, depots, stopping places, etc., with the exception of the town of Sherbrooke, and the directors take this opportunity to express their high sense of this unsolicited and generous donation.

Many circumstances combined to prevent that vigorous prosecution of the work during the past season intended by the board, and for which they had previously made every necessary preparation.

They were disappointed in the negociation of a loan in England; great difficulty was experienced in the collections in this country, and the hostile position assumed by the stockholders in England precluded the board from expecting financial assistance from further calls on the stock in that company for immediate purposes: nor were they able to avail themselves of the balance remaining in the hands of the London committee, who refused to place the amount at the disposal of this corporation until they shall be relieved from personal liability by legal decision on the pending actions.

This decision, it is expected, will be received during the present month.

The board, under these accumulated difficulties, deemed it prudent to curtail the anticipated expenditure, and accordingly made arrangements with the contractors to limit their proceedings in a ratio with the finances of the company, and the directors have the gratification to state, that their wishes were promptly met by the contractors, and without damage to the corporation.

Acting on these principles, the directors have urged the vigorous prosecution of the work in the first division between the St. Lawrence and Richelieu rivers—a distance of 16 miles. The rails for that distance are imported and stored at the company's terminus on the St. Lawrence, and the timber for the superstructure is deliverable in early spring; the grading is in an advanced state, and the directors have every reason to be confident, that it will be in full operation in August next. It is expected that the opening of this division will greatly facilitate the prosecution of the works on the further sections.

While anxiously desirous to complete the first division, the board have not confined the operations of the contractors exclusively thereto, but have continued at the same time to forward the work from the river Richelieu to St. Hyacinth, the grading of which division is in a state of much forwardness;—the heavy embankments on the easterly side of the river Richelieu to receive the bridge, being finished; and the principal masonry, including very important and expensive stone culverts in the different ravines, occurring at the base of the Rouville mountain, in gaining the table land from the river, being completed.

The causeway across the valley of Huron river, is in course of construction, and will be completed, or nearly so, during the winter; in fact, the principal and most expensive part of the work on the second division is finished. There are five miles on the easterly side of the Richelieu river, graded, out of fourteen—the length of the second division.

The timber for the superstructure of this division is contracted for by responsible persons, deliverable in August next; and the fencing of the road, including gates, from the St. Lawrence to St. Hyacinthe, is also under contract, to be completed at the same period, on very advantageous terms to the company.

The directors have made these arrangements, with the view of being enabled to place this division also in operation in December next or January of 1849, should the finances of the company permit; and that it be deemed advisable to import the necessary iron (1600 tons) during the approaching summer.

It was expected that the bridge over the Richelieu river would have been completed during the past season, but the high water last spring prevented an early commencement of the work, and a difficulty in obtaining laborers during the summer, still further retarded the operations of the contractor.

The foundation of the abutments, and of all the piers with the exception of two, are laid, and the masonry raised ten feet above low water; nearly all the stone necessary for completing the masonry is on the spot and dressed, with a large proportion of the timber and iron for the superstructure; and no doubt is entertained that this most important work will be completed in time for opening the road in August next.

The surveys for the prolongation of the road were commenced in May last at St. Hyacinthe, by one party under the command of W H. Vining, Esq., a gentleman of much experience, and have continued during the season to the 1st of December last. The results of the survey have been very satisfactory, clearly demonstrating that no impracticable obstacle opposes the junction of the St. Lawrence and Atlantic railroad at the boundary line, but on the contrary that favorable gradients can be obtained. It is the opinion of the engineers, that further examinations will produce still more favorable results. Two routes have been surveyed, and the third remains to be explored previously to a final location.

The aggregate length of line surveyed during the season, has been about 150 miles, of which 70 miles are approximately located, 34 miles definitely located, and the remainder experimental lines.

The importance of the branch of the road from Sherbrooke to Stanstead, in connection with the Connecticut and Passumpsic rivers railroad company, being fully recognised, a survey was made during the season by order of the directors, and the most favorable issue reported as to the practicability of its construction, whenever the company are in funds to commence operations.

The preliminary measures and inquiries have induced much expense. The directors consider, however, that it is an outlay which is now returning, and will hereafter return, great advantages to the corporation as regards the character and capacity of the road when completed, and in the assurance that every advantage is and will be taken, of the natural capabilities of the country through which it passes.

The directors beg reference to the report of the chief engineer, A. C. Morton, Esq., laid on the table, for a more detailed statement of the work, as well as of the operations of the survey.

The application to the legislature for an act to amend the act of incorporation, alluded to in the last annual report, was duly made, and received the royal assent. Amongst the most prominent of its provisions, are a right to borrow money, to charge interest upon the calls in default, and to pay interest on the paid up capital. It contains right of ferriage to and from Longueuil, to and from the city of Montreal, and confers the privilege of using the contemplated bridge over the St. Lawrence, and having a terminus in this city, should the bridge be completed.

The act was in its passage through the legislature, trammelled with a restrictive clause, relative to the gauge, which for a period created much difficulty, but which has happily been disposed of by the action of his excellency the governor general in council, and the gauge is thereby finally determined at 5 feet 6 inches, pursuant to the original convention entered into between this and the Atlantic and St. Lawrence railroad company.

As connected with the act, it may not be irrelevant to invite attention to the proceedings of the special general meeting of the stockholders, called on the 20th September last, under its provisions, relative to the payment of interest, and to state that the treasurer is prepared to pay at this office, interest at the rate of 6 per cent. per annum, on the paid up capital, to such of the stockholders as are duly entitled, and as provided for by the resolutions of that meeting.

The directors have to record no addition of stockholders to their subscription lists, which stand precisely in the same position as at the last annual general meeting, while they regret that most unexpected commercial distress has for the present rendered it imperative to stay further calls upon the stockholders, until the spring.

This determination the board will endeavor to adhere to, and under much inconvenience, they are collecting the outstanding balance of four instalments called in, to meet the current expenditure.

The directors report that, with the view of giving an opportunity to the inhabitants of the eastern townships, to avail themselves of the advantages the railroad, when finished to Acton, will present over the ordinary routes to Montreal, application was made to the government for a survey of certain roads, being leading communications through the most populous portions of the eastern townships, having a common junction at Acton, and that an assurance has been received that the survey will be made, and an estimate of the cost returned.

These roads, when completed, will have the effect of lessening the present cost of transportation from that section of the country at least one half, in addition to the saving of time, which at present is a heavy per centage on the trade of the townships with the city.

In view of the anticipated business of the road, the directors state with pleasure, the fact, that the Connecticut and Passumpsic rivers railroad company are fast approaching towards the provincial line, and it is hoped that at no distant day that railroad will be connected with this route at Stanstead.

As respects the principal terminus of this railroad at Portland, the directors are happy to know that accommodations of the most

ample character are to be found at the Atlantic terminus, and freight may be transferred to and from the railway cars to and from vessels, without further removals.

Allusion was made in the last annual report to the movement in Maine, having in view the extension of the road in the direc tion of the lower provinces—the friends of the enterprise will be gratified on learning that the project has been pushed forward in Maine with the greatest success.

At a point 27 miles on this side of Portland, an embranchment of the great artery takes place, and the eastern line is under contract to Waterville, 55 miles from that point, a portion of which is to be opened during the coming season, and completed to Waterville in 1849.

Its further extension to Bangor may be confidently assumed, and the directors are informed, that an application has already been made for a right to extend it from Bangor to the boundary of Maine, in the direction of the city of St. Johns, New Brunswick.

Since the last annual report of the directors, events have occurred which must clearly demonstrate to every one familiar with the business of Canada, and more especially to the inhabitants of Montreal, the paramount importance to the interests of this province, of the completion of the railway to Portland.

A way to and from the ocean at all seasons of the year, capable of successfully competing with other routes, is indispensably necessary to preserve the mercantile community from the ruinous effects of being forced to purchase at the prices of several months anticipation of their sales, which brings them into that season of the year in England when speculation in the anticipation of a good or bad harvest create a greater uncertainty than the calculations of any trade to make it commonly safe, ought to be subjected to.

It is painful to dwell upon the losses sustained by this community during the year just passed, for the want of this communication with the ocean—losses at least equivalent to one-half of the cost of the road; and the board only allude to them with the view of showing, prominently, the practical benefits of the St. Lawrence and Atlantic railroad when completed.

Prospectively, they consider it to be the first step to secure the completion of the Quebec and Halifax railroad, forming, as it will, a portion of that route for a distance of 70 miles from Montreal to Melbourne, and the connecting link towards western Canada.

The suspension of the corn laws in consequence of the famine in Great Britain and Ireland, has shown by the operations of free trade in breadstuffs, that Montreal will lose the principal part of the trade of the St. Lawrence, until her communications with the sea are perfected. Produce has been brought from lake Erie to Montreal, and has reached New York through lake Champlain and the Northern canal the past season, at prices below the cost of transportation by the Erie canal, occasioned by the extraordinary demand for transport, and the inability of the Erie canal to forward it as rapidly as desired.

It may fairly be assumed that other outlets, and of far greater capacity than the Erie canal, are necessary to the growing trade of the west; and that the extent of the necessity cannot at this present period be measured, for the resources of that country are boundless as the population may be; and it is gratifying to the friends of this province to feel, that, great as this increase may hereafter prove to be, the St. Lawrence and its improved canals, are equal to its conveyance, and that they are the natural outlet to the country of which the great lakes are the basin.

In connection with this highway towards the sea, a channel of communication is wanting, open at all seasons of the year, which may successfully compete in cheapness with all others, to make the city of Montreal the emporium of commerce for the inland waters, of which the St. Lawrence is the outlet.

The course of trade the present year has shown that, from Detroit to Montreal, in ordinary times, a barrel of flour may be brought for one shilling and sixpence currency, and the cost of laying it down at Portland by railway, need not exceed one shilling and sixpence more—making a total cost of three shillings per barrrel. Added to this, there is the advantage by this route, that produce may be carried from Chicago to the ocean, with but one transhipment, and that at Montreal, whereas no other route can probably be established, with less than three transhipments at least.

These facts must make it obvious to all who examine the question, that the railroad now in construction from this city to Portland, is the link necessary in the completion of this unequalled continuous communication to the sea, for its capabilities will be of the highest order, and its geopraphical position will enable it to compete successfully with any other road which can be constructed from the waters of the St Lawrence to the ocean.

It is the intention of the directors to petition the legislature of the province during its next session for public assistance to this undertaking, upon such plan as may seem meet to that body, as the directors, in common with the colonial public on this continent feel that, without railroads these colonies must sink into comparative insignificance; and the board point to the neighboring colonies of New Brunswick and Nova Scotia for examples of activity worthy of imitation, as well as to the colonies in the East and West Indies, where railroads are commencing, and are considered indispensable in the present era of progression.

The directors would again record their undiminished confidence in the eventual success of the undertaking, and that it will amply remunerate the stockholders as an investment.

All which is respectfully submitted.

A. N. Morin, *Chairman.*

Office St. Lawrence & Atlantic R. R. Co.,
Montreal, 19th January, 1848.

After the reading of the report, Maj. T. E. Campbell, Alex. T. Galt and Samuel Brooks, Esqs., were elected in the room of the three directors who retired by rotation.

Statement of Total Disbursements by the St. Lawrence and Atlantic Railroad Co, to 30th Nov. 1847.

PERMANENT DISBURSEMENTS FOR CONSTRUCTION.

For expenses of engineer department, including instruments		£6,386	12 6
For lands and stations, including payment of agents, notaries for engrossing deeds, travelling, etc		5,501	15 1
For iron, including freight, insurance, agency, duty, storage, etc		22,825	2 0
For grading, including the bridge over Richelieu river		26,132	12 10
For freight and platform cars		33	12 0
		£60,879	14 5
For office expenses, including furniture, salaries, postage, fuel, stationery, etc		1,439	0 9
For advertising and printing		350	1 4
For expenses of Mr. Galt's mission to England, travelling from 14th June to 31st December	303 3 5		
For printing, engraving, advertising, etc	474 2 9		
	777 6 2		
Sterling, at the rate of exchange when paid		962	11 5
For contingencies, including professional and incidental charges		319	6 0
Balance at profit and loss		18	6 7

DISBURSEMENTS OF LONDON COMMITTEE.

Amount paid as per accounts rendered 31st Dec., 1843, and 3d Feb., 1847.

For advertising, printing, agency, law expenses, etc., sterling		£1,216	9 3
For premium paid on purchase of 10,000*l.* exchequer bills		318	15 0
For amount re-paid shareholders (to Dec., 1846,) who had not signed the subscription of shares book, being the return of the deposit of 4*l.* sterling on 1,605*l.* shares, less 7*s.* 6*d.* per share deducted for expenses, pursuant to resolution of stockholders in Canada, of		5,818	2 6
For interest paid bankers on loan of 4,000*l.* sterling, the company receiving the interest on exchequer bills over-purchased to that amount by the London committee		24	18 8
Sterling		7,378	5 5
At 8 per cent. premium of exchange, equal in currency to		8,853	18 6
For purchase by London committee of 10,000*l.* exchequer bills, 6,000*l.* of which were afterwards sold out, leaving a balance of exchequer bills in the hands of the London committee, 4,000*l.* sterling, at 8 per cent. premium, exchange		4,800	0 0
For cash in hands of London committee, £615 15 sterling, at 8 per ct. do.		738	18 0
For bills receivable in bank of British North America		4,148	13 9
		£82,511	13 9

RECEIPTS.

By cash and bills receivable on acc't of— 1st instalment		15,483	4 0
2d do.		12,748	16 0
3d do.		11,544	0 0
4th do.		9,119	2 0
		48,895	2 0
By do. in advance of calls		3,964	12 0
By do. for interest		272	19 11
By do. received by the London committee, on account of the 1st instalment of 4*l.* sterling, on 2633 shares, £10,532 sterling, at 8 per ct. premium exchange		12,638	8 0
By. do. received by London committee for premium on sale of £6,000			

exchequer bills, stg...	81 15 0		
By do. do. interest on investvestment, £8,204, at 3 per ct.....	159 8 2		
By do. do. interest on 10,000*l.* exchequer bills.....	220 17 3		
Sterling.....	462 0 5		
Exchange at 8 per ct. premium.....		554 8 6	
By stock, the capital of the company, payable to Black, Wood & Co, being 25 per cent. of their estimate for grading, held as security for the due performance of their contract.....		4,000 0 0	
By stock, the capital of the company, payable to Blood, Stone & Co., held under similar arrangements.....		2,375 0 0	
By amount due Black, Wood & Co., balance of estimate to 30th Nov. '47.		1,859 0 0	
By amount due Boody, Stone & Co., balance of estimate to Nov. 30, '47.		1,039 0 0	
By amount due A. C. Morton, Esq., chief engineer, being balance of account current of the engineer department for Nov.....		289 11 10	
By cash advanced by bank of British North America, on the security of notes lodged in that institution.....		3,247 12 8	
By cash due City bank at Sherbrooke.		61 4 0	
By cash due bankers in London, advanced to London committee for purchase of 10,000*l.* exchequer bills, at 8 per ct. per ex.....		1,200 0 0	
By amount due on land and stations, payable (with interest annually) in 1852, secured on deeds to land proprietors.....		1,321 1 8	
By amount due the custom house, for bonds on iron.....		793 13 2	
		£82,511 13 9	

THOMAS STEERS, *Treasurer.*

Railways as a Means of National Defence, or the Gauge Question.

The following article on this subject is from the London Daily News. The editor says:

"A speedy and decided settlement of the railway gauge question is palpably an obligation of this kind, viz: making the fullest use of such means as we possess already, in reference to any system of national military defence—independently of its claims in other respects, from different branches of the business of this country, whose interests demand the removal of every obstacle to a ready communication between all parts of the island by those highways which now convey, wherever they are established, the whole of our passengers and merchandise. In any scheme of national resistence to attacks from without, the importance of being able to transport troops and artillery with the utmost despatch from various stations and depots to the menanced point is unquestionable. In the peculiar condition of our military wants, the value of a power of moving the disposable force backwards and forwards at a moment's notice, and with the speed of thought, must be obvious. A small army may in this manner be, as it were, multiplied; possessed of this advantage, its efficacy for warlike purposes may become double of that usually ascribed to a body of twice its numerical strength;—and not only this present readiness, but the better condition of the defenders as well, when transported from place to place without fatigue will enable them to act on arrival with more than the ordinary energy. This great advantage the railway system, wherever it exists unbroken, now offers to the troops of Great Britain, in case of any foreign invasion.

This very advantage, however, in all cases where a break of gauge occurs, is *pro tanto* withdrawn; and in place of the uninterrupted despatch—which our circumstances must render peculiarly important in any case of resistance to an enemy on our own soil—there is, by the difference of gauges, a bar placed at the entrance of every line where a new dimension begins, a dead point in the advance at which the progress of the detachment must be araested. The process of merely discharging troops from one set of carriages, and rearranging them in another, at the first joint station, will usually exceed the whole time that would have been required to forward the body from one end of the journey to another on a series of uniform railways—but when they move with head quarters and baggage—when cavalry forms any part of the force, still more if cannon and ammunition are required to be thus transported, the loss of time must then be far more serious, and the detention, if the numbers are great, and the distance from extreme point to point is not very considerable, may absorbe the whole of the gain from the speed at which the locomotive enables them to travel while in motion. On this subject, to which attention, one would think, cannot fail to be strongly directed, if our present anxieties are genuine, there was some very important evidence given to the gauge commissioners, in Nov., 1845, by Sir Willoughby Gordon, quartermaster general. This officer, then already long accustomed to despatch troops by railway, spoke with the authority of practical experience on the military disadvantages of being forced to change to another width of rail at any intermediate point of a route. It would, he said, '*be equivalent in practice to the inconvenience of a ferry—to crossing a river in march,*' and very sufficient reasons are given in detail for this opinion, somewhat to the effect of what we have stated above."

A Dangerous Ride.

The following account of a dangerous ride, by a train of passengers on the London and North Western railway, is from the Manchester Examiner. *Fortunately* no accident occurred.

MISCONDUCT OF AN ENGINE DRIVER.

On Monday, at the New Bailey, two men, named William Hatfield and Mark Clegg, the former an engine driver, and the latter a fireman, in the employ of the London and North Western railway company, were brought up before Mr. Trafford, the stipendiary magistrate, and Captain Whittaker, charged with drunkenness and gross negligence in the discharge of their duty. Mr. Wagstaff, (solicitor of Warrington,) appeared on behalf of the company, and from his statement, and the evidence of the witnesses, it appeared that the prisoners had charge of the night mail train, from Liverpool to London, on Saturday. The number of carriages and passengers was not stated, but the pointsman at the Warrington junction being at his post waiting for the train, was surprised to hear it coming at a very rapid rate. He had been preparing to turn the points, in order to shunt the train on to the Warrington junction; but as the train did not diminish in speed, but rather increased as it approached, he, anticipating great danger if he should turn the points, determined on the instant upon letting the train take its course, and not turning them. Most fortunate was it that he exercised so much judgment and sagacity, for, in consequence of the acuteness of the curve at the Warrington junction, and the tremendous rate at which the train was proceeding—not less than 40 miles an hour—it does not appear that anything could have otherwise prevented the train from being overturned, and a frightful sacrifice of human life ensuing. Meantime the train continued its frightful progress; but the mail guard seated at the end of the train, perceiving that it was going on towards Manchester, instead of staying at the junction, signalled to the engine driver and fireman, but without effect, no notice whatever being taken of the signals. Finding this to be the case, he, at very considerable risk, passed over from carriage to carriage, till he reached the engine, where he found both the prisoners lying drunk, and apparently insensible, from the effects of liquor. They resisted for some time all his efforts to stop the train, and he was unable to bring them to a sense of their duty and their peril, until they were near to Patricroft. At length, however, he succeeded in stopping the train just before it reached that station, a distance of 14 miles from Warrington. This again appears to be almost a miraculous circumstance, for at the Patricroft station, on the same line as that on which the mail train was running, was another train, containing a number of passengers, who thus escaped from the consequences of a dreadful collision. The prisoners were, of course, immediately given into custody, and conveyed to the New Bailey prison, while, other assistance being obtained, the train was taken back again to the Warrington junction. The regulation is, in consequence of the sharp curves at this junction, that the trains shall not run at more than 5 miles per hour. Hatfield appeared very penitent, and wept bitterly, at the danger to life and property, of which he had been the cause. Clegg said that he had been out all the previous night with a train, and had not taken his clothes off; that before he started for Liverpool he had taken three glasses of spirits and water, but that he went into the office before the train started, and did not feel any effects from what he had drunk until after the train started, when he supposed it was the keen air, coupled with his having been up all the previous night, which caused him to fall asleed. The magistrates had power to commit the prisoners summarily for two months' hard labor, or to inflict a fine of £10, or to send the prisoners for trial at the sessions, at which they would be liable to a sentence of two years' imprisonment. After some consultation, the bench, appearing to be of opinion that some negligence had been exhibited at the office in Liverpool, or the men would not have been allowed to have left there in such a state of intoxication, decided upon the first alternative, and sentenced both prisoners to two months' hard labor.

New York and Boston Air Line and the Hudson River Railroad.

Continued from page 121.

In both cases powerful causes have been for some time operating, to concentrate the business below the bridges. The three out lets to the Hudson river, of the Erie and Champlain canals, the depot of the Troy and Boston railroad, and the landing of the New York steamers, are all below the bridge at Troy. The population of East and West Troy, is also mostly below, and is tending downwards, irrespective of any effect of the bridge. In the case of the bridge at Newark, the terminus of the Morris canal in Newark bay, the landing of the New York steamers, and the principal railroad depot, are all be low; and the position of the railroad bridge, has had no influence in producing this result; and even if it had, no fair inference could be drawn from it showing that the proposed bridge at Middletown would produce any material injury to a place situated as the city of Hartford, nineteen miles above.

It is proper to state that the draws in the bridges at the places named, are not only comparatively narrow, but are inconveniently situated for passing. The width of the draw at Newark is thirty-six feet only, and the bridge is oblique to the course of the stream. That at Troy is larger, yet is only fifty-four feet in the clear, and is situated quite at the eastern end of the bridge, in a bend of the river, and the channel through it is partly artificial, and the current at all times strong. This bridge has a double roadway, one being used for the common travel. One of the draws is consequently closed most of the time. In neither case are the draws so arranged as to be operated in the easiest and most expeditious manner. The extent of sloop navigation, above the bridge at Troy, is about six miles, with a dam and lock intervening, and a strong current. The extent above the bridge at Newark, is about ten miles, with at times less than three feet water upon some of the bars.

Whatever may have been the effect in either case, of the bridges upon the value of property, immediately above them, it may confidently be asserted, that not a single vessel less has visited the ports of Waterford on the one, or Aquacknonk on the other, in consequence of being obliged to pass through the bridges named, situated below those places.

The bridge below Fairhaven, in this state, in its effect upon the business above it, bears a somewhat nearer resemblance to the one proposed at Middletown, than the two adduced above, although even that is very far from being a parallel case. The draw in this bridge has an opening of only fifty-three feet in the clear, and is closed at all times, except when opened for the passage of vessels. It is situated at one extremity of the bridge, where there is a cross current produced by the waters of Mill river, meeting those of the Quinnipiac, which is varied by the action of the tide.

Fairhaven, although not situated far enough from New Haven to command, as a commercial port, the business of a distinct range of country, still has a business somewhat peculiar to itself, and notwithstanding its position above the bridge, the prices of freight are no different from what they are at the adjoining port of New Haven, where there is no bridge to be passed.

The bridge which crosses the Connecticut river at Hartford, cannot justly be adduced as an example of the effect of a suitable bridge erected at Middletown. Like the Newark and Troy bridges, the navigation above is limited in extent, and there is very little to attract the trade above it. But even if it were an object for vessels to ascend higher, the bridge itself is so very imperfectly constructed as to impose upon navigators a great deal of unnecessary inconvenience. The bridge being used for the common travel, the draw is closed at all times, except when vessels are passing. When open, the draw has a width in the clear between the timber work of only twenty feet, and only thirty-two feet between the masonry. It is of very rude construction, placed at one end of the bridge, in the bend of the river, under cover of high buildings, and is about as illy adapted for the purpose designed as it could well be. It probably answers the requirements of the bridge charter, but is far from being suited to the navigable character of the river as far up as sloops are known to ascend.

With respect to the bridge itself, the first span from the draw is only eighty-three and a half feet, being one and a half feet *less* than the opening of the draw at Middletown. Its dimensions in other respects, as compared with the proposed bridge at Middletown, are as follows:

	Bridge at Hartford.	Proposed bridge at Middletown.
Main bridge	928 ft.	
Two small bridges on the meadows east	551 "	
	1479 "	1958 feet.
Width of piers at top	16 to 19 "	6 to 10 "
Width in clear of draw	20 "	85 "
Length of spans	83¼ to 150 "	180 "
Shape of piers.	Square at ends.	Pointed at ends.
Section of water way between low water line & a line 20 feet above low water	24,884 sq. ft.	36,000 sq. ft.
Artificial obstructions from piers, causeway, etc., between the same limits	22,810 sq. ft.	2,210 sq. ft.

In the case of the proposed bridge at Middletown, the ratio of artificial obstruction to the section of the water way, between the limits specified above, is only one-sixteenth part; but in the case of the Hartford bridge, the two are nearly equal, showing that the latter, viewed in connection with the causeway on each side, may with almost as much propriety be termed a dam, as a bridge. The necessity of having about the same amount of water way at Hartford as at Middletown, is evident, from the fact that the quantity of water passing Hartford to the sea, is not much less than that passing Middletown. The surface drained by the Connecticut above Hartford, is between 10,000 and 11,000 square miles, and above Middletown, it is only 400 to 500 square miles more; a portion of which additional drainages goes to supply the greater evaporation from the surface of the river between the two places. The quantity of water passing Middletown to the sea, is probably not more than four or five per cent. greater than the amount which passes Hartford.

The instances where draw bridges have been authorized and erected, in crossing navigable waters with railroads are numerous; and still more so, where they have been erected for the purposes of the common travel.

No less than twenty railroads are now in operation in the United States, on each of which are one or more draw bridges over navigable tide waters. The city of New York being upon an island, could not be entered with an unbroken line of railway, except by means of a bridge of that description, and the same is partially true of Boston.

The question of the right of state legislatures to authorize the erection of draw bridges over navigable waters, where they are needed to promote the general convenience, is not at the present day, a matter of doubt. There is unquestionably a limit to the exercise of the power; and while pursuing the great object of the "greatest good of the greatest number," a just regard should be paid to the interests of the few that they be not unnecessarily injured. The time has been when the inland navigation of the country was more essential to its prosperity than now. The system of railways is taking the place in a great measure of other modes of intercommunication, and is revolutionizing by its superiority, the internal commerce, not only of this, but of other countries.

The same care with which the internal navigation of the country has hitherto been preserved and fostered, should be extended to railways, for a like reason; but with this difference, that the latter from their great superiority merit in comparison, a higher consideration. That people or state which does not recognise this truth in its conduct and legislation, is behind the spirit of the age, and needs a "Discourse on roads," to enlighten their path of duty.

I have, perhaps, been more full in my explanations in regard to the proposed bridge over the Connecticut, than the circumstances of the case required. My excuse for so doing, is to be found in the importance of the subject, and in the fact, that much error prevails in regard to it. I feel confident that no serious injury will result in consequence of its erection, to the business interests of Hartford; and should they suffer, or should that city hereafter not prosper to the same degree as heretofore, it will be owing to the diminished importance of a position at the "head of sloop navigation," and to other causes than the erection of a bridge at Middletown.

The future will show that the legislature which granted the charter incorporating the New York and Boston railroad company, with the privilege of crossing the Connecticut river by a bridge, acted wisely in so doing, and with regard to the best interests and honor of the state.

The subject of the probable revenue of the road, is one to which I have given some attention, and I feel confident that the published estimate of freight and passengers, as made by Profs. Smith and Johnston, is below rather than above, the truth. That estimate is as follows:

Receipts from passengers	$75,200
" freight	67,061
" passengers, on Norwich and Worcester road	36,000
Receipts from towns more than ten miles distant	25,000
Receipts from business and way stations, exclusive of freight from Connecticut river	12,000
Add mail and expresses	15,000
Total annual receipts	230,261
To the above is added for increase in consequence of the building of the road, the sum of	113,825
Making in all	344,086

The experience upon most roads, shows a much greater increase over existing business, in consequence of the construction of the road, than is estimated above. One hundred per cent. advance would not, I believe, be too high an estimate. In nearly every case where railways have not fulfilled the expectations of their projectors, it has been owing, not to an over estimate of the probable business, which has generally been placed too low; but to the fact that the roads have cost more than was contemplated. Any error in this latter respect, I have endeavored to guard against in the estimates, by making them sufficiently liberal to cover contingencies.

* * * * *

In a few years, and a very large population will have gathered in adjacent on either side exhibiting an almost continuous line of villages, owing to their existence and extraordinary growth, principally to the vivifying influence of the railway; and in turn imparting to the latter an amount of business of the most profitable kind, not exceeded, probably, by any other line of equal extent in the United States.

In this view, it will not, it is believed, be deemed an extravagant estimate, if the annual revenue of the New York and Boston railroad, in Connecticut, is supposed to reach in a very short period after its completion, the sum of 450,000 to 500,000 dollars. Deducting from the amount first named, one half for the annual expense of operating and maintaining the road, which is a very fair proportion; a proportion sustained by the experience of several existing roads, and there remains the sum of $225,000 for distribution annually among the stockholders, equal to *eight per cent.* on the capital invested, and a surplus of $20,000 for contingencies.

This is the result considering the road merely as a local work. It is, however, too limited a view to take of the subject. The New York and Boston railroad in Connecticut, is a portion of a route connecting the cities of New York and Boston in the most direct and feasible manner, and is destined to become the principal medium for the transit of passengers and light goods between those two great and flourishing cities. It will be the great artery into which will flow the travel and business of the richly populated region contiguous to it, and the contributions of the many existing and projected lines of railroad intersected by it.

By reference to the map, it will be seen that the most direct, practicable course for a railway from New York city to Boston, follows near the north shore of Long Island sound as far as New Haven, a distance of seventy five miles nearly. Charters from the states of New York and Connecticut, have been obtained for this portion, and so much of it as is not now in operation, has been placed under contract, and the work upon it is in progress, with a fair prospect of its being ready for use by the close of another year.

From New Haven to Boston, the direct course follows the route pursued in the surveys, for the New York and Boston railroad, as described above. The whole gound has been instrumentally examined, and it is ascertained that a very favorable line can be obtained. This line is removed from the waters of the sound, and so far as the way business is concerned, from all steamboat competition thereon. It passes directly thro' the eastern portion of this state, as above described, leaving the state near its northeast corner, thence through a portion of Rhode Island and Massachusetts, to Boston.

The distance upon this line from New Haven to Boston, as ascertained by actual survey, is one hundred and thirty-six and a half miles, making the whole distance from New York city to Boston two hundred and ten or two hundred and eleven miles. From New Haven to the east line of the state, (83 miles,) is embraced by the charter of the New York and Boston railroad company, which confers the right to erect a bridge across the Connecticut river, at Middletown.

In Rhode Island, an application is pending for a charter for the portion in that state, embracing a distance of about eighteen miles; and in Massachusetts, a charter was granted at the last session of the legislature, authorizing the construction of a railway from the Rhode Island line at Blackstone, towards Boston, connecting with the Boston and Providence railroad, about eleven miles from Boston, and making the whole distance in the state of Massachusetts, nearly thirty-six miles. It will be seen, therefore, that the whole line from New York to Boston, has received the legislative sanction, with the exception of the portion in Rhode Island, which is only about one-twelfth part of the whole.

Should any doubt exist as to the probability of obtaining a charter for this portion, the line may be so varied as to avoid that state entirely, by increasing the distance only four to five miles, still leaving it superior to any existing or projected route connecting the two great cities named. It is not, however, believed that the state of Rhode Island will be willing, by such a change, to lose the benefit of a location within the limits of that state.*

* We understand that the legislature of Rhode Island has refused the charter asked, but that is no reason why the next will not do it.

The corporation, under the charter granted in Massachusetts, has the right "to enter upon the Boston and Providence railroad, by proper means, and to use the same, subject to such tolls as may be mutually agreed between said corporations, *as the legislature may from time to time prescribe.*" This portion is now in course of construction, and it is understood, will soon be ready for use.

It is proper to remark here, that if the New York and Boston road is completed no farther than from New Haven to its intersection with the Norwich and Worcester railroad, seven miles from the Rhode Island line, it will afford through the medium of that road, via Worcester, a route to Boston, superior to that by the way of Springfield, being ten miles shorter, with less curvature, and will, in consequence, be likely to participate the most largely in the through travel between New Haven and Worcester, or between New York and Boston.

From an examination of the general features of the country north and south, it is ascertained that the only other inland route, between New Haven and Boston, which comes nearest as a competitor, to the direct route, for the *through* travel, etc., is that by the way of Springfield. This line is composed of the New Haven, Hartford, and Springfield railroad, a portion of the western railroad, and the Boston and Worcester railroad, comprising three or four corporations in all.

The two routes compare very nearly as follows:

Distance from New Haven, via Springfield, to Boston	161¼ miles.
Distance by the direct route	136¼ "
Difference	25 "
Maximum grade on the Springfield route	66 ft. pr m.
" the direct route	55 "
Difference	11 "

The surveys upon the direct route show, that by making a change in the position of the line, at particular points the maximum grade may be reduced to fifty feet per mile, without adding to the distance, or materially enhancing the expense.

The total rise and fall upon the direct route cannot be accurately stated, until the line is established. It is estimated at from 3,900 feet to 4,100 feet.

Upon the Springfield route, as near as can be ascertained, it is	3,150 "
Difference	950
Total deflection of curves on the Springfield route	6,500 deg.
Total deflection of curves on the direct route	4,700 "
Difference	1,800 "

It will be seen from the above, that as respects distance, there is a large difference in favor of the direct route, viz, 25 miles. As it respects the maximum grade, and consequent maximum load which an engine of given power can draw, there is also a balance in favor of the direct route. The gross load in tons which an engine can convey up an ascent of fifty feet per mile, is one-sixth more than it can convey up an ascent of sixty feet

per mile; and one-fourth more than can be conveyed at the same speed up an ascent of sixty-six feet per mile. It is stated that the maximum grade in one direction, upon the road from Springfield to Boston, is only fifty feet per mile. This being true, the balance in favor of the direct route, will be lessened, since for trains passing in one direction, it will possess no superiority over the Springfield line, in respect to the maximum grade.

With regard to the difference in the total rise and fall which, as stated above, is in favor of the Springfield route, its effect will be confined to the relative speed of the trains upon the two routes, and this may be ascertained with sufficient accuracy, by assuming the amount for each route to be distributed uniformly throughout the whole distance, and then computing the speed of an engine drawing a given load upon the uniform inclination thus obtained.

The cities of New Haven and Boston, being upon the same level of tide, there will be the same amount of ascent as of descent upon the Springfield route; and the same is likewise true of the direct route.

Upon the Springfield route there is, therefore, $\frac{3150}{2}$=1575 feet of ascent, and the same amount of descent, which, as the whole distance is one hundred and sixty-one and a half miles is overcome, the ascent in $\frac{161\frac{1}{2}}{2}$=80¾ miles, and the descent, in the same distance; giving an average inclination of the grade line, of nineteen and a half feet per mile, ascending for one half of the distance, and descending for the remaining half.

Upon the direct route, the amount of ascent by the supposition, as above, is equal to $\frac{4100}{2}$=2050 feet, and descent the same, and the distance being 125½ miles, there is on the average $\frac{136\frac{1}{2}}{2}$=68¼ miles of ascending grade, giving an uniform rate of thirty feet per mile, and the same distance of descending grade, at the same uniform rate of descent per mile.

In computing the speed with which a locomotive engine can convey a given load up a given rate of ascent per mile, many considerations are involved, which render the process too complicated to be presented in full, in a communication like the present. Such a computation has been, however, very carefully made, for the two inclinations named above, of 19½ and 30 feet per mile, and the result is, that an engine which can convey a load up an inclination of 19½ feet per mile, at the rate of 27½ miles per hour, can convey the same load, under the same pressure of steam, up an inclination of thirty feet per per mile, at the rate of twenty-five miles per hour.*

By applying these velocities to the two routes under consideration, it will be seen that the time required to overcome the 80¾ miles of ascent upon the Springfield route, is equal to hours $\frac{80\frac{3}{4}}{27\frac{1}{2}}$=two hours and fifty six minutes, and to overcome the 68¼ miles of ascent upon the direct route, it requires hours $\frac{68\frac{1}{4}}{25}$=two hours and forty-four minutes; that is to say, the total ascent upon the direct route will be overcome in twelve minutes *less* time, than the ascent upon the Springfield route. If the descent upon both lines is accomplished, at a like rate of motion, which rate it will not be unreasonable to assume at 40 miles per hour, upon a road of a suitable character, the engine upon the direct route will have passed over eight miles of descending grade at the moment the engine upon the Springfield route reaches the summit, and commences its descent; that is to say, at the moment named, the engine on the direct route will have before it a distance to be passed over of 68¼—8=60¼ miles, while that upon the Springfield route has yet to pass over half of the whole distance on that route, or 80¾ miles, to reach the end of its journey; showing a clear difference of 80¾—60¼=20½ miles, in favor of the direct route, or a loss of only 25—20½=4½ miles, in consequence of the extra rise and fall upon the latter.

By this calculation, the result of which is so favorable to the direct route, it is assumed that the descending velocity is the same upon both routes, a condition which can only be realized by the application of *extra* power upon the Springfield route; for the reason, that the required velocity *down* an inclination of thirty feet per mile, can, with the road and cars in good order, be obtained by the aid of gravity alone; while upon an inclination of 19½ feet per mile, *some* aid from steam is necessary to give to the train any motion; that inclination being, if anything, within the limit whereon gravity and the resistances to the advance of the train, are in equilibrio.

In the calculation, also, it is assumed, that the resistance from curvatures is the same on both routes; whereas there is a difference, or balance, in favor of the direct route of 1800 degrees of deflection, which is probably equivalent in its effect upon the speed of fast trains, to a distance sufficient to offset against the greater rise and fall on that route, making the actual practical difference of the two, if anything, greater than their measured difference, or more than *twenty five miles in favor of the direct route.*

It is, moreover, supposed that the two lines of railroad are built in the same manner; instead of this, however, it is recommended to build the road upon a direct route in a superior manner, with a heavier rail, and with a more firm and substantial track, so as to allow of the use of heavier and more powerful engines, and thus ensure a higher degree of speed, with the same degree of safety. It is also recommended to make such improvements in the plan of the road, as will secure a speed, in addition to what is practicable on existing lines, of full five miles per hour.

If in addition to the preceding, the importance is considered, of an independent line of railway, devoted mainly to the transportation of passengers, between the cities of New York and Boston, which shall be under one management, throughout the entire distance, and free from the delays and interruptions which must unavoidably take place upon the Springfield route; a road upon which the *through* travel and business can be conveyed at less expense than upon the Springfield route, in consequence of the saving in maintenance and repair of 25 miles of road, causing a proportionate saving in the wear and tear of cars and engines; a road, the cost of which will be full two millions of dollars less, than has already been expended upon the line by the way of Springfield; when indeed all these things are considered, it will be obvious that the actual practical difference of the two routes, when reduced to equivalent miles, instead of being twenty-five miles, or thereabouts, will be greater than that amount, and as it respects the difference in time, should be rated at not less than *one hour* in favor of the direct route for the passenger trains, and for the freight trains, from *two* to *three hours* in favor of the direct route.

It may perhaps be urged, that, inasmuch as the route via Springfield, has a business independent of the through travel, etc., between Boston and New Haven, sufficient for the maintenance of the road, and the payment of liberal dividends to the proprietors, it can afford to carry *through* passengers at very low rates; but whatever is true of that route in this respect, is true in a greater degree of the direct route, it having been ascertained from official documents, that the population furnishing a *way* business, is the greatest per mile on the direct route, and of a character to contribute more, relatively to the business of a railroad, and it having been ascertained also by statistical inquiries, made with much care, that the amount of travel and business on that route, as already shown, is adequate to sustain it handsomely, without regard to the *through* travel between Boston and New York. Hence the through travel, etc., can be conveyed at a very low rate, and at a cheaper rate than upon the Springfield route, inasmuch as the cost of the road will not be as great by nearly one third.

In the estimate, made as given above, of the relative speed attainable upon the two routes, the formula of DePambour was used, as being the best authority for such computations. The treatise of that gentleman upon railway locomotives, is the most complete of any extant. It is recognized as the best authority, both in this country and in Europe, and although there are minor points, in which it may, perhaps, be shown to be imperfect, yet in a case of the kind under consideration, where the object is mainly to ascertain the *relative* merits of two lines, without regard to the *absolute* capabilities of either, those imperfections become quite unimportant.

A similar remark may also be made as to the propriety of assuming, as is done above, the total rise and fall on each line, to be uniformly distributed throughout the whole extent of each respectively. This supposition is, of course, not in strict accordance with the facts of the case; but whatever inaccuracy

* For confirmation of this, see treatise of De Pambour on locomotives, etc.

may result from thus averaging the gradients on one route, a like inaccuracy will appear in the other, so that the actual *relative* merits of the two are probably as correctly ascertained as they could be by taking the several gradients upon each, in the order in which they occur, and computing the speed upon them separately.

It will be proper to state, before leaving this part of the subject, that the formula of De Pambour, spoken of above, is a *practical* formula, based upon, and derived from, actual experiments made with great care and skill, upon the best roads, and with the best engines then in use in England. In fact, prior to the appearance of the work of De Pambour, there existed no formula which expressed, with any very near approach to truth, the *practical* operations of the steam engine, whether applied to railways or to any other purpose.

With respect to the speed attainable upon the direct route, the average rate adopted in the above calculations is $\frac{25 \text{ plus } 40}{2} = 32\frac{1}{2}$ miles per hour. This speed is contemplated for the fast trains only; and if continued through to New York, as it may be, (there being no gradients between New Haven and New York to prevent,) it will enable the trains to pass the whole distance from city to city, two hundred and eleven miles, in about *six and a half hours* of running time, or seven hours, including stoppages; and if the road is built as proposed, with a suitable track and very heavy rail, and the highways are carried either over or under the railway, as intended, a deduction may be made from the above estimate, and the whole distance may be traversed, if required, in about five hours, running time.

A road of the character described, will command nearly all of the travel between the cities of Boston and New York. This travel is now, probably, equal to 150,000 passages annually, and in a very short time it will be double that amount. Indeed, it may safely be asserted that the travel between those cities would be very much greater than it now is, if a railway such as is described above, were now in existence.

In respect to the number of passengers to be conveyed upon it, the New York and Boston road direct will be supported, not by he population and business alone, of New York and Boston, and intermediate places, ut it will receive in addition thereto, a rge amount from other sources. It will constitute the main avenue of communication between New England and the south and southwest, in which direction the travel must, from obvious causes, continue rapidly to increase. It will also constitute a main avenue of communication with the west, since by no other equally feasible route, can the New York and Erie railroad, which is now being built from the waters of the Hudson to Lake Erie, be continued into New England. Its importance in this latter respect, will be more fully appreciated, when it is considered that the New York and Erie railroad is destined by its extension through the states of Ohio, Indiana, etc., to be the great main line of railway communication between New York city and the far west.

The New York and Boston railroad, when located as contemplated, upon the best ground, and most direct route, will occupy such a position that it cannot be superseded by any other railway connecting the same two important points. In this view, it must constantly improve in character and importance as a national work. The population in its vicinity, and consequent value of property, will continually increase without fear of a relapse; and investments made in the stock of the road, will be in a corresponding degree, safe and profitable.

In this respect it will not be surpassed by any other work of the kind in the country. There is not, probably, another portion of the country where a railway of the same extent can be located, and at its very opening command so large a business as this line from Boston to New York. In its course from city to city, it intersects four existing lines of railway reaching northward into New England, all of which will be tributary to it; lines which are constantly being lengthened by the construction of new portions. From its great superiority it will have nothing to apprehend from competition with steamboats, or rival railroads. It passes through a section of country densely populated. The amount of the population within the imme diate sphere of its influence, exclusive of the two cities at its termini, exceeding half a million of souls; a population mostly engaged in pursuits of a character to contribute largely to the business of a railroad; considerations which have done more to build up and sustain the system of railways in New England than all other causes combined.

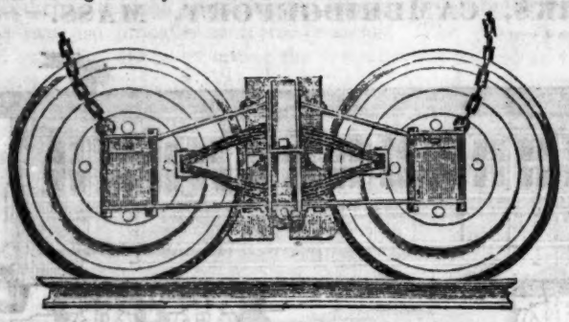
The fact, that in Massachusetts, Rhode Island, and Connecticut, there is a population to the square mile nearly double that of any other state; thus furnishing a very large amount of what is termed *way* business, is the true cause of the great success of New England railways; and this element of success will be possessed by the New York and Boston road in as high a degree, and to as great extent as any other railway in New England.

Its importance in promoting the future growth and prosperity of places within its influence, will, it is believed, be so apparent, from what is stated above, as not to require further illustration. The route passes through a region of country not accommodated, excepting particular portions indirectly, by any existing line of railway; it consequently will not interfere with the vested rights of any other corporation, neither will it materially diminish the income of any other railway company, while it will add to the income of several, it being now well understood that in proportion as the railway system is extended, the travel upon existing lines is increased.

In view of the importance of the New York and Boston railroad, as a great public work, it is very desirable that its construction should be accomplished in a style and manner commensurate with its merits. Corporate powers for its construction have, as already stated, been obtained from the legislature of Massachusetts, Connecticut, and New York, embracing eleven-twelfths of the whole distance. There remains the state of Rhode Island which has not granted the requisite power. To doubt that it will do so, when the proper time arrives, would be to question the intelligence and patriotism of the people of a state, thus far distinguished for liberal and enlightened views upon questions of a like character. * * *

EDWIN F. JOHNSON, *Civil Engineer.*
Middletown, August, 1847.

RAY'S EQUALIZING RAILWAY TRUCK.—THE SUBSCRIBER having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East river, (of which firm the subscriber was late a partner) under the immediat supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846. W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the bes and most economical truck now in use.

[Signed,] WILLIAM ROE, Sup't of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845. [Signed,] G. A. NICOLL, Sup,t Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use. [Signed,] T. L. SMITH,

Jersey City, November 4, 1845. N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car.

For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

Long Island Railroad Depot, Jamaica November 12, 1845. } [Signed,] JOHN LEACH, Sup't Motive Power.

1y19

ENGLISH PATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.—for sale or imported to order by the subscriber.

These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,
75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwich Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.				HEMPEN ROPES.			CHAINS.		STRENGTH
Wire gauge number.	Circumference of rope.	Weight per fathom.		Circumference of rope.	Weight per fathom.		Weight per fathom.	Diameter of iron.	Tons.
	INCH.	LBS.	OZ.	INCH.	LBS.	OZ.	LBS.	INCH.	
11	4¼	13	5	10	24	–	50	15-16	20
13	3¼	8	3	8¼	16	–	27	11-16	13¼
14	3¼	6	11	7¼	12	8	17	9-16	10¼
15	2¼	5	2	6¼	9	4	13½	1-2	7½
16	2¼	4	3	6	8	8	10½	7-16	7

N.B. The working load, with a perpendicular lift, may be taken at 6 *cwt. for every lb. weight per fathom, so that a rope weighing* 5 *lbs. per fathom would safely lift* 3360 *lbs., and so on in proportion.* 1y24

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicotts' Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of **20** years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT.
Factory, 9th street, near Coates, cor. Melon st.
Office, No. 3 North 5th street,
1y25 Philadelphia, Pa.

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee G. A. NICOLLS,
ja45 *Reading, Pa.*

TO RAILROAD COMPANIES AND MANufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE,
a45 N. E. cor. 12th and Market sts., Philad., Pa.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. ANDREW C. GRAY,
a45 President of the Newcastle Manuf. Co.

KEARNEY FIRE BRICK. F. W BRINLEY, Manufacturer, Perth Amboy N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms mos. from delivery of brick on board. Refer to

James P. Allaire,
Peter Cooper, } New York.
Murdock, Leavirt & Co.
J. Triplett & Son, Richmond, Va.
J. R. Anderson, Tredegar Iron Works, Richmond, Va.
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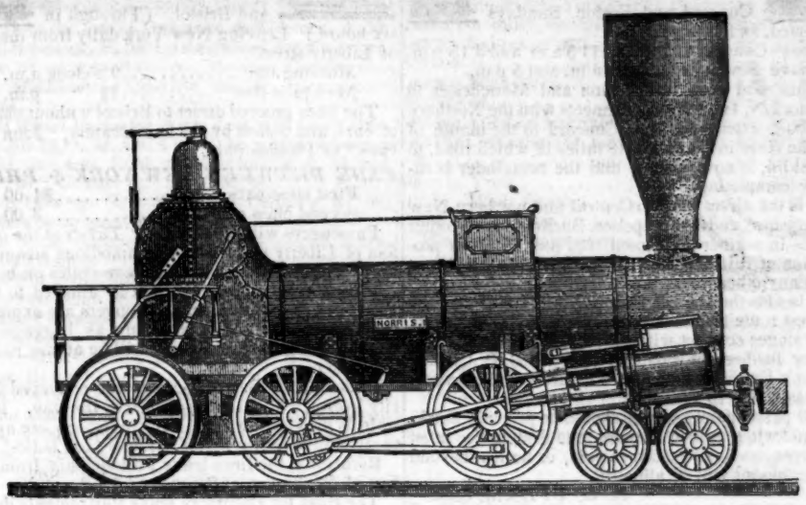
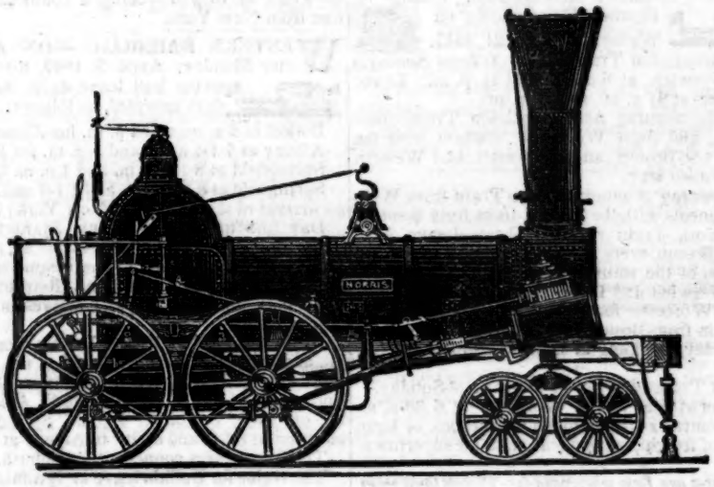
J. M. L. & W. H. Scovill, Waterbury, Con.
N. E. Screw Co. } Provicence, R. I.
Eagle Screw Co.
William Parker, Supt. Bost. and Worc. R. R.
New Jersey Malleable Iron Co., Newark N. J
Gardiner, Harrison & Co. Newark, N. J
25,000 to 30,000 made weekly. 35

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,





THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size. Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS' BROTHERS.

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed beinglarge, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Paterson, N. J., or 60 Wall street, N. York.

PIG AND BLOOM IRON.—THE SUBSCRIbers are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniatta Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,
12tf Vine St. Wharf, Philadelphia.

T. & C. WASON, Manufacturers of every style of Freight and Baggage Cars.—Forty rods east of the depot, Springfield, Mass.

Running parts in sets complete, Wheels, Axles, or any part of cars furnished and fitted up at short notice and in the best manner.

N.B. Particular attention paid to the manufacture of the *most improved* Freight Cars. We refer to the New Haven, Hartford and Springfield; Connecticut River; Harlem; Housatonic, and Western, Mass.; Railroads, where our cars are now in constant use.

Dec. 25 1847.—1y.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1¼ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, *Agent*,
1y Albany Iron and Nail Works.

THE SUBSCRIBERS ARE PREPARED TO execute orders at their Phœnix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO.,
Philadelphia.
ROBERT NICHOLS, Agent,
26tf No. 79 Water St., New York.

CHILLED RAILROAD WHEELS.—THE undersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of Spokes or Disks, by a new process which prevents all strain on the metal, such as is is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,
Willow St. below 13th,
Nov. 10, 1847. [tf.] Philadelphia, Penna.

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent*.

Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York will be punctually attended to.

HENRY BURDEN, *Agent*.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

*** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

RAILROAD IRON—800 TONS OF THE latest and most improved pattern of T Rail—weighing about 60 lbs. to the yard, for sale by

BOORMAN, JOHNSTON & CO.,
1m ja 1 119 Greenwich St., New York.

BOSTON AND MAINE RAILROAD.
Upper Route, to Portland and the East.


WINTER ARRANGEMENT,

Commencing October 4, 1847.

PORTLAND TRAINS.

Leave Boston at 7 A.M. and 2½ P.M.
Leave Portland at 7½ A.M. and 3 P.M.

GREAT FALLS TRAIN.

Leave Boston at 3½ P.M.
Leave Great Falls at 6½ A.M.

LAWRENCE TRAINS.

Leave Boston at 7, 11½ a.m., 2½, 3½, 5½ p.m.
Leave Lawrence at 7, 8½, 11 a.m., 3½, 6½ p.m.

HAVERHILL TRAINS.

Leave Boston at 11½ A.M. and 5½ P.M.
Leave Haverhill at 7 A.M. and 3½ P.M.

READING TRAINS.

Leave Boston at 8½ A.M. and 6½ P.M.
Leave Reading at 6·50 A.M. and 1½ P.M.

MEDFORD BRANCH TRAINS.

Leave Boston at 7½, a.m., 12 m., 2½, 4½, 6 p.m.
Leave Medford at 7, 8½, a.m., 1½, 3½, 5 p.m.

The Depot in Boston is on Haymarket Square.
1y31 CHAS. MINOT, *Sup't.*

BOSTON AND PROVIDENCE RAILroad. Passenger Notice. Summer Arrangement. On and after Monday, April 5, 1847, the Passenger Trains will run as follows:


Steamboat train via Stonington—Leaves Boston every day, except Sunday, at 5 o'clock p.m.

Accommodation Trains—leave Boston at 7 and 10½ a.m. and 4 p.m., and Providence at 7½ and 10½ a.m. and 4½ p.m.

Dedham trains, leave Boston at 8 a.m., 12½, 3½, 6½ and 9 p.m., Leave Dedham at 7 and 9½ a.m. and 2½, 5½ and 8 p.m.

Stoughton trains, leave Boston at 11½ a.m. and 5½ p.m. Leave Stoughton at 7 10 a.m. and 3½ p.m.

All baggage at the risk of the owners thereof.
25tf W. RAYMOND LEE, *Sup't.*

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.—On and after Tuesday, June 1st, 1847, the cars


will run as follows, until further notice. Up trains will leave the City Hall for—

Yorkville, Harlem and Morrisana at 6, 8 and 11 a.m., 2, 2 30, 5 and 7 p.m.

For Morrisiana, Fordham, Williams' Bridge, Tuckahoe, Hart's Corner and White Plains, 7 and 10 a.m., 4 and 5 30 p.m.

For White Plains, Pleasantville, Newcastle, Mechanicsville and Croton Falls, 7 a.m. and 4 p.m. Freight train at 1 p.m.

Returning to New York, will leave—

Morrisiana and Harlem, 7, 8 20 and 9 a.m., 1, 3, 4 30, 6, 6 28 and 8 p.m.

Fordham, 8 08 and 9 15 a.m., 1 20 and 6 15 p.m.

Williams Bridge, 8 and 9 08 a.m., 1 10, 6 08 p.m.

Tuckahoe, 7 38 and 8 25 a.m., 12 55 and 5 52 p.m.

White Plains, 7 10 and 8 35 a.m., 12 50, 5 35 p.m.

Pleasantville, 8 15 a.m. and 5 15 p.m.

Newcastle, 8 a.m. and 5 p.m.

Mechanicsville, 7 48 a.m. and 4. 48 p.m.

Croton Falls, 7 30 a.m. and 4 30 p.m. Freight train at 10 a.m.

Freight train will leave 32d street for Croton Falls and intermediate places, 4 a.m and City Hall 1 p.m.

Returning, leave Croton Falls 10 a.m. and 9½ p.m.

ON SUNDAYS, the trains will run as follows:

Leave City Hall for Croton Falls, 7 a.m, 4 p.m.

Croton Falls for City Hall, 7 30 a.m., 4 30 p.m.

Leave City Hall for White Plains and intermediate places, 7 and 10 a.m. 4 and 5 30 p.m.

White Plains for City Hall, 7 10 and 8 35 a.m., 12 30 and 5 35 p.m.

Extra trains will be run to Harlem, Fordham and Williams Bridge on Sunday, when the weather is fine.

The trains to and from Croton Falls will not stop on N. York island, except at Broome st. and 32d st.

A car will preceed each train 10 minutes to take up passengers in the city.

Fare from New York to Croton Falls and Somers $1, to Mechanicsville 87½c., to Newcastle 75c., to Pleasantville 62½c. to White Plains 50c. 25tf

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CONCORD RAILROAD.—PASSENGER Trains in connection with the Lowell & Nashua Railroads, run daily between


Concord and Boston, Sundays excepted, as follows. viz:

Leave Concord at 5 40 and 11 5 a.m. and 3 15 p.m.

Leave Boston at 7 and 11 a.m. and 5 p.m.

This road runs by Nashua and Manchester to Concord N. H., where it connects with the Northern railroad, extending from Concord to the mouth of White river in Vermont, 18 miles of which road, to Franklin, is now opened, and the remainder is rapidly completing.

It is the direct route to Central and northern New Hampshire, and to Montpelier, Burlington, and other towns in northern Vermont, and has a greater proportion of railroad conveyance in those directions than any other line.

It is also the British Steam Mail Line, and the nearest route from Boston to the Canadas. Numerous stages connect with all parts of the road.

For further information, apply at B. P. Cheney & Co.'s Express office, No. 8 Court St., and Averill & Dean, No. 15 Elm St.

All passengers' baggage should be properly marked, and when valued at more than $50, notice must be given, and extra charges paid, or no loss beyond such amount will be allowed.
26tf N. G. UPHAM, Supt.

NORWICH AND WORCESTER RAILRoad. Summer Arrangement. Change of Hours. Commencing on


Wednesday, April 21, 1847.

Accommodation Trains, daily, (except Sunday.) Leave Norwich, at 6 a. m., and 4½ p. m. Leave Worcester, at 8½ a. m., and 4½ p. m.

☞ The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 2½ p.m. train from Boston.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the stamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 6½ p.m., daily, except Sunday, stopping at Danielsonville and Norwich.

Freight Trains daily each way, except Sunday.—Leave Norwich at 7, and Worcester at 6 30 a. m. Special contracts will be made for cargoes, or large quanties of freight, on application to the superintendent.

☞ *Fares are Less when paid for Tickets than when paid in the Cars.* ☜
32 1y J W. STOWELL, Sup't

LONG ISLAND RAILROAD COMPANY. Summer Arrangement. On and after Monday May 1st, trains will run as


follows, except Sundays:

Leave—Brooklyn at 9 1-2 a.m. for Farmingdale, 1 1-2 p.m. for Greenport, at 4 p.m. for Farmingdale.

Leave Farmingdale at 7 a.m for Brooklyn, 12 m. do., at 3 1-4 do. do.

Leave Greenport at 8 1-2 a.m. for Brooklyn.

Leave Jamaica at 8 a.m. for Brooklyn, at 1 p.m. do., at 4½ p.m do.

On Saturdays, a train will leave Brooklyn for Yaphank, at 4 p.m. Leave Yaphank, on Mondays for Brooklyn at 5 1-2 a.m.

On and after May 15th, and until September 1st, 1847, a train will leave Jamaica at 7 a.m. for Brooklyn—leave Brooklyn at 6 p.m. for Jamaica, and will land and receive passengers at any place between Brooklyn and Jamaica.

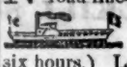
On Sundays—leave Brooklyn at 8 1-2 a.m. for Farmingdale; leave Farmingdale at 4 p. m. for Brooklyn.

Freight Trains—leave Brooklyn at 10 a.m. for Greenport; leave Greenport at 12 m. for Brooklyn.

Baggage crates will be in readiness at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side.

The steamer "Statesman," Captain Nash, leaves Greenport for Sag Harbor on the arrival of the Accommodation train from Brooklyn.
15tf DAVID S. IVES Sup't.

NEW YORK AND PHILADELPHIA RAILroad line—direct. Via Newark, New Brunswick, Princeton, Trenton,




and Bristol. (Through in six hours.) Leaving New York daily from the foot of Liberty street.

Morning line.....9 o'clock a.m.
Mail pilot line.....4½ " p.m.

The lines proceed direct to Bristol without change of cars, and thence by the new steamer, "John Stevens," to Philadelphia.

FARE BETWEEN NEW YORK & PHILA.
First class cars.....$4 00
Second class cars..... 3 00

Passengers will procure their *Tickets* at the office foot of Liberty st., where a commodious steamboat will be in readiness with Baggage-crates on board.

Fifty pounds of baggage will be allowed to each passenger in this line, and passengers are expressly prohibited from taking anything as baggage but their wearing apparel, which will be at the risk of the owner.

Philadelphia Baggage-crates are conveyed from city to city, without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for ladies' use

Returning, the lines leave Philadelphia from the foot of Walnut st. at 9 a.m, and 4 1-2 p.m.

The lines for Baltimore leave Philadelphia daily except Sundays, at 8 a.m., 3½ and 10 p.m., and Sundays only at 10 p.m.—being a continuation of the line from New York. 25tf

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WESTERN RAILROAD.—ON AND AFter Monday, April 5, 1847, the passenger


trains will leave daily, Sundays excepted, as follows:

Boston at 8 a. m. and 4 p. m. for Albany.

Albany at 7 1-4 a. m. and 5 p. m. for Boston.

Springfield at 8 1-2 a. m. and 1 p. m. for Albany

Springfield at 8 1-2 a. m. and 1 1-2 and 3 p. m. (or on arrival of the train from New York) for Boston.

Day line to New York, via Springfield.—The steamboat train leaves Boston at 6 a. m., and arrives in New York at 7 p. m., by the steamboats Traveller, New York, or Champion. Returning, leaves New York at 6 1-4 a. m., and arrives in Boston at 7 p. m.

Night line to New York.—Leaves Boston at 4 p. m., and arrives in New York at 5 a. m.

Albany and Troy.—Leave Boston at 8 a. m., Springfield at 1 p. m., and arrive in Albany at 6 p. m.; or, leave Boston at 4 p.m., Springfield next morning at 8 1-2, and arrive in Albany at 1 1-2 p.m.

The Troy trains connect at Greenbush.

The trains for Buffalo leave at 7½ a.m. and 7 p.m.

For Northampton, Greenfield, etc.—The trains of the Connecticut River Railroad leave Springfield at 8 1-4 a.m., 1 and 3 p.m., and passengers proceed directly on to Brattleboro', Windsor, Bellows Falls, Walpole, Hanover, Haverhill, etc.

For Hartford.—The trains leave Springfield on the arrival of the trains from Boston.

The trains of Pittsfield and North Adams Railroad leave Pittsfield on the arrival of the trains from Boston.

N. B.—No responsibility assumed for any baggage by the passenger trains, except for wearing apparel not exceeding the value of fifty dollars, unless by special agreement.

JAMES BARNES, Sup't and Eng'r.
C. A. SEAD, Agent, 27 State street, Boston.

GREAT SOUTHERN MAIL LINE! VIA Washington city, Richmond, Petersburg, Weldon and Charleston, S. C., direct to New Orleans. The only Line which carries the Great Southern Mail, and Twenty-four Hours in advance of Bay Line, leaving Baltimore same day.

Passengers leaving New York at 4½ P.M., Philadelphia at 10 P.M., and Baltimore at 6½ A.M., proceed without delay at any point, by this line, reaching Richmond in *eleven*, Petersburg in *thirteen and a half hours*, and Charleston, S. C., in *two days* from Baltimore.

Fare from Baltimore to Charleston.....$21 00
" " " Richmond..... 6 60

For Tickets, or further information, apply at the *Southern Ticket Office*, adjoining the *Washington Railroad Office*, Pratt street, Baltimore, to
1y14 STOCTON & FALLS, Agents.

NEW YORK AND ERIE RAILROAD LINE SUMMER ARRANGEMENT. For passengers, twice each way daily, (except Sunday,) leave New York from the foot of Duane St. at 7 o'clock, A. M. and at 4 o'clock, P. M. by steamboat, for Piermont, thence by cars to Ramapo, Monroe, Chester, Goshen, Middletown, Otisville, and the intermediate stations.

The return trains for New York will leave Otisville at 6 30, A. M. and 4 15, P. M.; Middletown at 7 A. M. and 4 40, P. M.; Goshen at 7 22, A. M. and 5 3, P. M.; Chester at 7 35, A. M. and 5 18, P. M.

Fare between New York and Otisville, $1 50; way-fare in proportion.

FOR MILK—Leave Otisville at 5½ o'clock, morning and evening.

FOR FREIGHT—The barges "Samuel Marsh and "Henry Suydam, Jr." will leave New York (from the foot of Duane St.) at 5 o'clock, P. M. daily (except Sundays.)

No freight will be received in New York after 5 o'clock, P. M.

Freight for New York will be taken by the trains leaving Otisville at 10½ o'clock, A. M.; Middletown at 11½, A. M.; Goshen at 12½, P. M.; Chester at 1 o'clock, P. M., etc., etc.

For farther particulars, apply to J. F. CLARKSON, Agent, corner of Duane and West Sts., New York, or to S. S. POST, Superintendent Transportation, Piermont.

24tf H. C. SEYMOUR, Sup't.

LITTLE MIAMI RAILROAD COMPANY. Fall and Winter Arrangement, 1847. On and after Monday, September 20th, until further notice, a Passenger train will run as follows:

Leave Cincinnati daily at 9 A. M., for Milford, Foster's Crossing, Deerfield, Morrow, Fort Ancient, Freeport, Waynesville, Spring Valley, Xenia, Yellow Springs, and Springfield. Returning, will leave Springfield at 4½ a.m. Upward train arrives at Springfield at 2½ p.m. Downward train arrives at Cincinnati at 10½ a.m.

Freight trains will run each way daily.

Messrs. Neil, Moore & Co. are running the following stage lines in connection with the road:

A daily line from Xenia to Columbus and Wheeling, carrying the great Eastern mail.

Daily lines from Springfield to Columbus, Zanesville and Wheeling. Also to Urbana and Bellefontaine.

A line of Hacks runs daily in connection with the train between Deerfield and Lebanon.

Passengers leaving for New York and Boston, arrive at Sandusky city via Urbana, Bellefontaine & the Mad River and Lake Erie railroad, in 27 hours, including several hours' sleep at Bellefontaine. To the same point via Columbus, Delaware, Mansfield and the Mansfield and Sandusky city railroad, is 32 hours. Distance from Cincinnati to Springfield by railroad.....84½ miles.

From Springfield to Bellefontaine by stage, over a good Summer road.....32 "

From Bellefontaine to Sandusky city by railroad.....102 "

FARE—From Cincinnati to Lebanon....$1 00
" " " Xenia..... 1 50
" " " Springfield.. 2 00
" " " Columbus... 4 00
" " " Sundusky city 7 00

The Passenger trains runs in connection with Strader & Gorman's line of Mail Packets to Louisville.

Tickets can be procured at the Broadway Hotel, Dennison House, or at the Depot of the Company on East Front street.

Further information and through tickets for the Stage lines, may be procured at P. Campbell, Agent on Front street, near Broadway.

The company will not be responsible for baggage beyond 50 dollars in value, unless the same is returned to the conductor or agent, and freight paid at of a passage for every $500 in value over that amount.

47tf W. H. CLEMENT, *Sup't.*

BALTIMORE AND SUSQUEHANNA Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger trains run daily, except Sunday, as follows:

Leaves Baltimore at.....9 a.m. and 3½ p.m.
Arrives at.....9 a.m. and 6½ p.m.
Leaves York at.....5 a.m. and 3 p.m.
Arrives at.....12½ p.m. and 8 p.m.
Leaves York for Columbia at..1½ p.m. and 8 a.m.
Leaves Columbia for York at..8 a.m. and 2 p.m.

FARE.

Fare to York.....$1 50
" Wrightsville..... 2 00
" Columbia..... 2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg.....$9
Or via Lancaster by railroad..... 10
Through tickets to Harrisburg or Gettysburg.. 3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at.....5½ p.m.
Returning, leaves Owing's Mills at.....7 a.m.

D. C. H. BORDLEY, *Sup't.*
31 1y Ticket Office, 63 North st.

LEXINGTON AND OHIO RAILROAD. Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m. Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare $1·25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and ma. 9. from Frankfort, other hours as above. 35ly

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CENTRAL AND MACON AND WESTern Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

	Miles.
Savannah to Macon—Central Railroad	190
Macon to Atlanta—Macon and Western	101
Atlanta to Oothcaloga—Western and Atlaniic	80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

	To Atlanta.	To Oothcaloga.
On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings	$0 50	$0 75
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones	0 50	0 62½
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot	0 20 pr. 100lbs.	35
Crockery, per cubic foot	0 15 " "	35
Molasses and Oil, per hhd., (smaller casks in proportion).	9 00	12 50
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each	1 25	1 50
Ploughs, (small,) and Wheelbarrows	0 80	1 05
Salt, per Liverpool Sack	0 70	0 95

Passage—Savannah to Atlanta, $10; Children, under 12 years of age, half price,
Savannah to Macon, $7.

☞ Goods consigned to the subscriber will be forwarded free of Commissions.

☞ Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, *Forwarding Agent, C. R. R.*
Savannah, Aug. 15th, 1846. 1y34

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry — with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points $7, and 4 cents per mile for less distances. Fare through to Wheeling $11 and time about 36 hours, to Pittsburgh $10, and time about 32 hours. Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13y1

CENTRAL RAILROAD—FROM SAVANnah to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, $8 00. Freight—

On weight goods generally... 50 cts. per hundred.
On measurement goods..... 13 cts. per cubic ft.
On brls. wet (except molasses and oil).....$1 50 per barrel.
On brls. dry (except lime)... 80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.
On hhds. and pipes of liquor, not over 120 gallons.....$5 00 per hhd.
On molasses and oil.....$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE,
y40 Gen'l. Sup't. Transportation.

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily.....$26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia..... 22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

t25 JOHN KING, Jr, *Agent.*

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tuscumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.
Atlanta, Georgia, April 16th, 1846. 1y1

AMERICAN RAILROAD JOURNAL.
OFFICE AT THE FRANKLIN HOUSE,
105 Chestnut Street,
PHILADELPHIA, PA.

This is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

TERMS.—Five Dollars a year, *in advance.*

RATES OF ADVERTISING.

One page per annum	$125 00
One column "	50 00
One square "	15 00
One page per month	20 00
One column "	8 00
One square "	2 50
One page, single insertion	8 00
One columnn " "	3 00
One square " "	1 00
Professional notices per annum	5

☞ LETTERS and COMMUNICATIONS for this Journal may be directed to the *Editor,*
D. K. MINOR.